

September 25, 1996

**Memo to BDAC re "Durability" of CALFED Proposals
as Related to Preservation of Agriculture
by Alex Hildebrand**

Introduction

The Bay Delta Advisory Council began a discussion of basic policy issues at its September 20 meeting. Two of these issues are a definition of the intent that our CALFED proposals should be "durable", and the extent to which CALFED will protect agriculture. I believe that the two are interrelated. It was suggested by Sunne McPeak that there be a written proposal regarding the time frame contemplated for "durability", and the considerations inherent in sustaining our goals through that time frame. She also proposed that CALFED policy regarding agriculture should be on the agenda of the October meeting. If other public needs are not acceptably provided as the population grows, it is doubtful that the allocation of resources needed to meet our environmental goals will be politically sustainable. Population growth is the biggest threat to the ability to sustain our goals.

It takes and will continue to take more land and water to provide the public's food and clothing than to provide its domestic and other needs no matter where or how efficiently food is grown. There is little likelihood that new technology will change this. The durability of our proposals must, therefore, be examined in relation to the future assurance of adequate land and water for agriculture either in California or for food grown and imported from other countries.

Proposed Time Frame

There is a long response time required to make any substantial change in our water supply or water management because of the time required to recognize a need, develop plans, prepare environmental assessments, provide funding, construct facilities, achieve environmental and public reaction to the changes, etc. I propose, therefore, that we strive for at least a twenty five year "durability" for our plans. The State's population forecasts indicate that we should plan for almost twenty million more Californians in that time frame, i.e. a future population of about 165% of the present population. The plausibility of this population forecast can be judged by the threefold increase in California's population that has occurred in the forty-six years since the Central Valley Project went into operation.

Sustainable Agriculture

If California's agricultural land and water supplies were kept at the present level, and if current groundwater overdrafts were sustainable, the per capita allocation of water to grow food and fiber in California would be reduced to about sixty percent of its present level in the above time frame. Land conversion to expanding urban areas and to roads will reduce this further, and current groundwater overdrafts are not sustainable. Furthermore, there are ongoing conversions of land and its associated agricultural water to environmental uses as mitigation for development, for use of Cal Trans federal funds, etc. The per capita allocation of water to grow food is likely to be reduced to less than half its present level in the above time frame even if further reallocations are not fostered, unless new water supplies for agriculture are developed.

The food we now export abroad would not feed twenty million people. There are also three million more people to feed in the United States every year, and they depend on California for about 25% of their table food. Other countries from which we could now import food typically have population growth rates greater than ours and/or are also running out of water. There are ninety million more people to feed every year worldwide.

There is not much flexibility in the amount of water a plant must consume in order to grow a pound of biomass. (Excess applications of water are largely recovered and reused in the Central Valley). Foods like fruits, vegetables, nuts, and dairy products do take somewhat more and better quality water than food like barley, but people don't want to live on barley and on tumble weeds from fallowed land.

In considering the probability that our goals can be sustained we must, therefore, assess the potential cumulative impact of these influences on the State's per capita production of food, and the potential impact on public support for environmental protection if the foods the public wants become scarcer and more expensive due to lack of water. Market forces will not react in time to avoid the delays in response time that were previously mentioned, or to avoid the depletion of groundwater, and the delay in the impact of future population growth on the food supply will become apparent too late to take corrective measures. We cannot assume, therefore, that purchases of water from willing agricultural water users for non-agricultural uses will be in the long range public interest.

Water Reallocation from Agriculture

CALFED's current proposals foster taking water from agriculture in various ways: (1) by permanent land fallowing for the purpose of reducing agricultural water use; (2) by land fallowing in dry years to create dry year water reliability for other uses at the expense of agriculture; (3) by purchases of San Joaquin tributary water for spring fish flows with consequent reduction in agricultural water supply

in the tributaries and reduction of the streamflow needed in the summer to meet downstream consumptive and instream needs; (4) by conversion of land in the Delta from agriculture to wetlands with direct loss of agricultural production and with an increase in the consumption of water in the Delta such that agricultural lands elsewhere will probably receive less water; (5) by causing land on the westside of the San Joaquin Valley to go out of production due to failure to dispose of the salt that is imported via the Delta Mendota Canal; and (6) by fostering the transfer of agricultural water from the Central Valley to urban users outside of the valley whenever it is in the personal interest of a seller to do so. (See the Hildebrand-Herrick critique of the "Model Water Transfer Act".)

Conclusion

For all of the reasons discussed above I believe that (a) we should strive to make our goals sustainable for at least 25 years; (b) we should not rely on market forces to reallocate a limited supply of water among purposes and basins of use in the best public interest. (The response time of market prices is too slow, and the reallocations tend to be irreversible regardless of law); (c) we should realize that if water supplies for production of food and for domestic use become inadequate to satisfy public perceptions of need it will become politically impossible to sustain the resources required to meet our environmental goals.

For these reasons I propose that we develop our proposals to be compatible with a twenty million growth in California's population and with due regard for the competition for land and water that will exist with that population. The public must perceive at that time that the State's water supply has been appropriately further developed, efficiently utilized, and appropriately allocated among environmental, domestic, industrial, and food supply needs.

The scope of the current CALFED program will not provide for all future needs. However, it should endeavor to be compatible with a more comprehensive plan which has yet to be addressed. CALFED should, therefore, not cause, assume, or foster a net loss of water and prime land for growing food and fiber. Failure to commit to this no net loss would be short sighted and imprudent. Even with that commitment, the CALFED proposals will not contribute to the need to feed twenty million more people. They will merely not exacerbate the problem of meeting a future need for which the State has no plan.